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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,535	02/21/2002	Kazunori Komatsu	Q68390	3063

7590 11/04/2005  
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EXAMINER

NEGRON, DANIEL L

ART UNIT PAPER NUMBER

2651

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

✓  
10/078,535

Applicant(s)

KOMATSU ET AL

Examiner

Daniell L. Negrón

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

#### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Regarding claims 1-12, the rejections applied to claims 1-12 in the previous Office action mailed June 13, 2005 are herein repeated for the same reasons (see Response to Arguments).

Regarding claim 13, the limitations “...*wherein the magnetic generating device is rotatably mounted on the magnetic transfer apparatus such that an application angle  $\alpha$  of the transferring magnetic field is adjustable...*” and “...*an application angle  $\beta$  of the transferring magnetic field by the magnetic transferring device is adjustable...*” is considered new matter since Applicant's specification fails to disclose a magnetic generating device that is **rotatably mounted** to allow **adjusting** of the angles  $\alpha$  and  $\beta$ .

#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu et al U.S. Patent No. 6,570,724.

Regarding claims 1 and 5, Komatsu et al disclose a magnetic transfer method applying a transferring magnetic field in a state that a master medium (1) for magnetically transferring in which a magnetic layer is formed in a portion corresponding to information signals on a surface of a substrate, and a magnetic recording medium which is a slave medium (4) being magnetically transferred, are in close contact with each other (column 7, lines 10-24), comprising the steps of

Providing a magnetic generating device (8) that is rotatably mounted on a magnetic transfer apparatus (column 10, lines 28-34), applying a magnetic field to the slave medium in a track direction of a slave surface to initial DC magnetize the slave medium previously in the track direction (column 7, lines 55-62), bringing the master medium and the slave medium into close contact with each other and applying the transferring magnetic field generated by the magnetic generating device in the track direction of a slave surface to execute a magnetic transfer for copying information on the surface of the master medium to the slave medium (column 7, line 63 through column 8, line 6).

Komatsu et al further disclose a magnetic transfer method wherein an application angle of the transferring magnetic field is inclined  $0 < \alpha \leq 30^\circ$  or  $-30^\circ \leq \alpha < 0$  with respect to the slave surface (column 8, lines 42-51). Komatsu et al further disclose an angle  $\beta$  equal to  $0^\circ$  since the magnetic field is being applied in the direction of track on the slave medium (i.e. in tangential direction of a circular arc), (see column 7, line 63 through column 8, line 6), but fail to show an

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application angle  $\beta$  of the transferring magnetic field being  $0 < \beta \leq 30^\circ$  or  $-30^\circ \leq \beta < 0$  with respect to the track direction on a plane parallel to the slave surface.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement an angle  $\beta$  being within a range of  $0 < \beta \leq 30^\circ$  or  $-30^\circ \leq \beta < 0$ , since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claims 2, 3, 6, and 7, claims 2, 3, 6, and 7, have limitations similar to those treated in the above rejection of claims 1 and 5, and are met by the reference as discussed above.

Regarding claims 4 and 8, claims 4 and 8 have limitations similar to those treated in the above rejection of claims 1, 2, 5, and 6 and are met by the reference as discussed above.

Regarding claims 9-12, Komatsu et al disclose a magnetic transfer method wherein a track direction is a tangential to circumferential track on the slave surface (column 7, lines 55-62).

Regarding claim 13, Komatsu et al disclose magnetic transfer apparatus for applying a transferring magnetic field in a state that a master medium (1) for magnetically transferring in which a magnetic layer is formed in a portion corresponding to information signals on a surface of a substrate, and a magnetic recording medium which is a slave medium (4) for being magnetically transferred, are in close contact with each other, which comprises: a magnetic field generating device (8) that applies the transferring magnetic field to the slave medium in close contact with the master medium, wherein the magnetic generating device is rotatably mounted on

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the magnetic transfer apparatus such that an application angle  $\alpha$  of the transferring magnetic field by the magnetic field generating device is adjustable within a range of  $\pm 30^\circ$  with respect to a slave surface on a plane perpendicular to the slave surface (column 10, lines 28-34),

Komatsu et al further disclose an application angle  $\beta$  at an angle equal to  $0^\circ$  but fail to explicitly show an application angle  $\beta$  of the transferring magnetic field by the magnetic field generating device is adjustable within a range of  $\pm 30^\circ$  with respect to the track direction on a plane parallel to the slave surface.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the angle  $\beta$  adjustable within a range of  $\pm 30^\circ$ , since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954). Furthermore, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

### ***Response to Arguments***

6. Applicant's arguments filed October 13, 2005 regarding rejection of claims 1-12 under 35 U.S.C. 112 have been fully considered but they are not persuasive.

In the response to the previous Office action mailed June 13, 2005 Applicant argues that Tables 1 and 2 of the current application's specification provide enabling disclosure for the claimed ranges for application angles  $\alpha$  ( $0 < \alpha \leq 30^\circ$  or  $-30^\circ \leq \alpha < 0$ ) and  $\beta$  ( $0 < \beta \leq 30^\circ$  or  $-30^\circ \leq \beta < 0$ ), however Examiner respectfully disagrees. Applicant's specification (including Tables 1 and 2), show that in order for good magnetic transfer to occur, the relative value of difference (C/N) between the peak intensity C of a first signal and noise N of the medium must be greater than -6 dB (see pages 18 and 19). Tables 1 and 2 show that values of C/N remain greater than

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-6 dB when the **sum of the absolute values** of angles  $\alpha$  and  $\beta$  is less than  $30^\circ$  (see page 21).

Applicant's specification does not have support for a range which excludes  $0^\circ$  as a possible angle since the specification shows that, for example, if  $\alpha = 30^\circ$ ,  $\beta$  can only be equal to  $0^\circ$  in order for the sum of the absolute values to be  $30^\circ$  and for the C/N to be greater than -6 dB, therefore allowing good magnetic transfer to occur. Therefore, it is considered that Applicant's amendment of the claims constitutes new matter and the rejection of claims 1-12 under 35 U.S.C. 112 discussed in the previous Office action is repeated.

7. Applicant's arguments with respect to claim 13 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniell L. Negrón whose telephone number is 571-272-7559. The examiner can normally be reached on Monday-Friday (8:30am-5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DLN   
November 1, 2005

  
DAVID HUDSPETH  
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